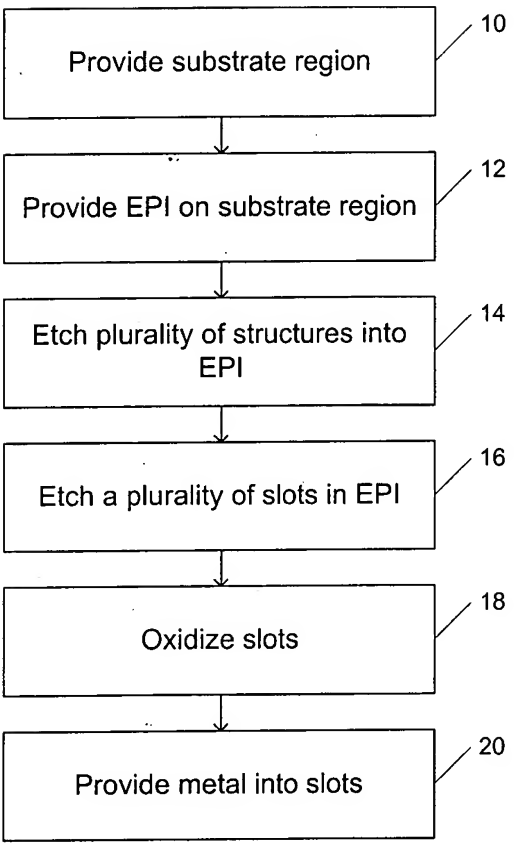

Provide substrate region
10
Provide EPI on substrate region
12
Etch plurality of structures into EPI
14
Etch a plurality of slots in EPI
16
Oxidize slots
18
Provide metal into slots
20

Fig. 1

FOREIGN PUBLICATION

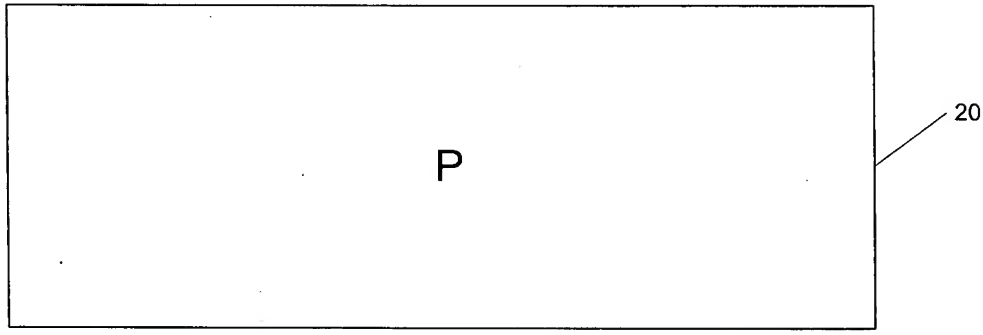


Fig. 2a

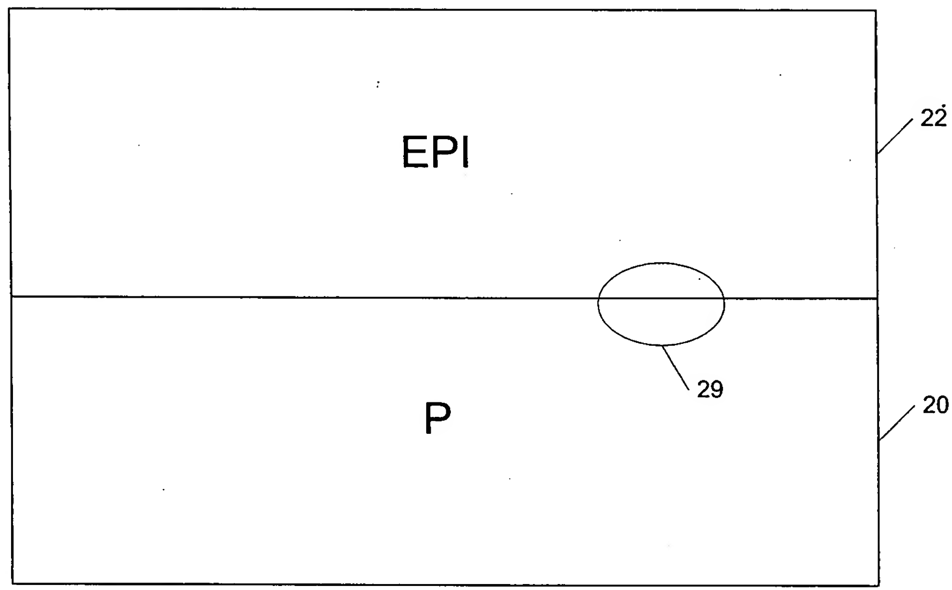


Fig. 2b

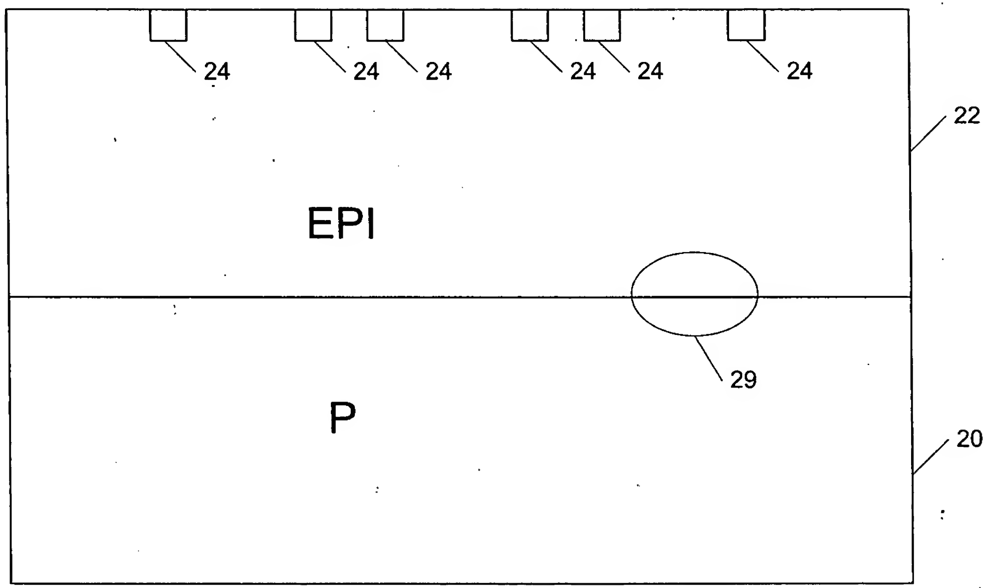


Fig. 2c

Adobe Acrobat Reader

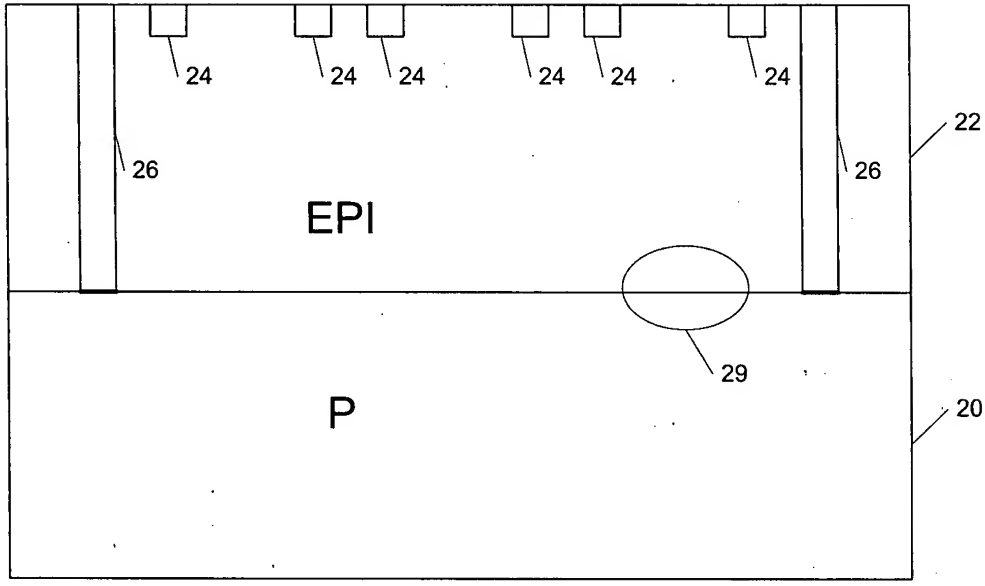


Fig. 2d

FOREST-2901P007

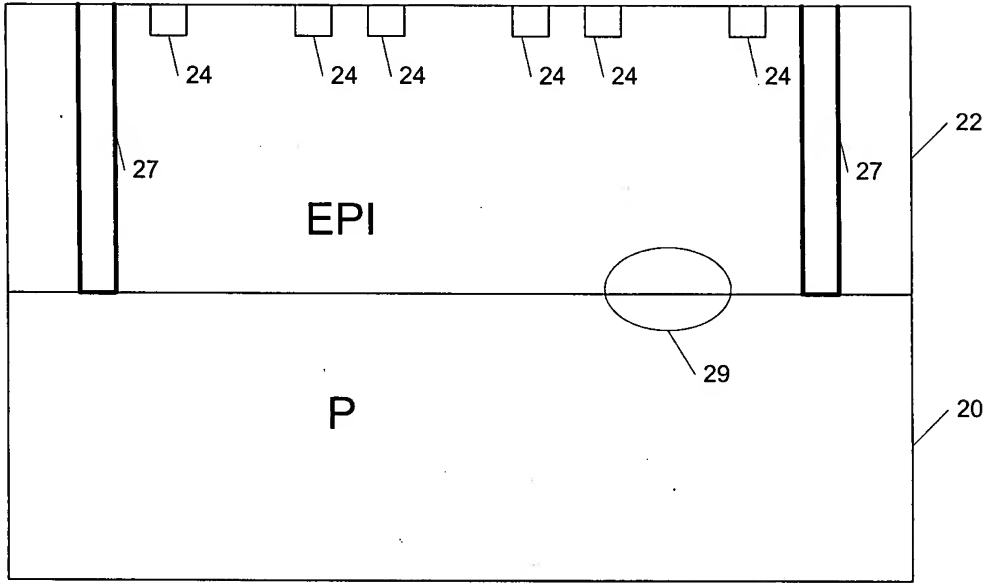


Fig. 2e

Sheet 2 of 2

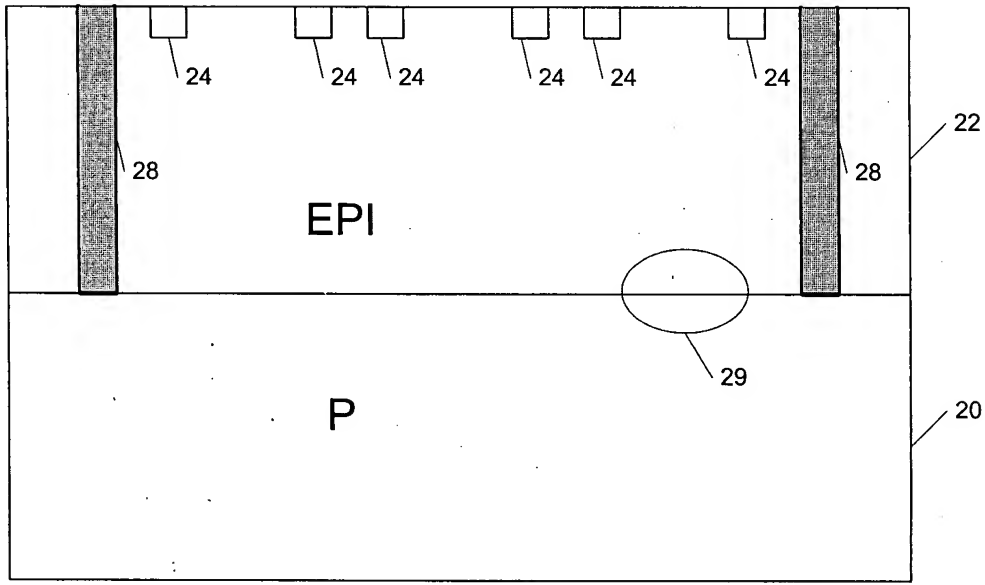


Fig. 2f

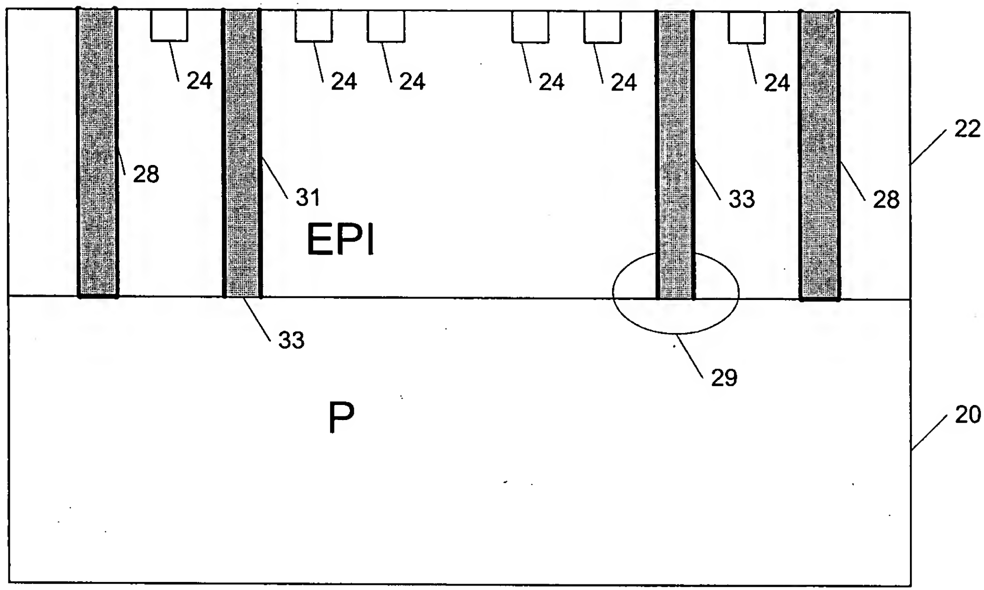


Fig. 2g

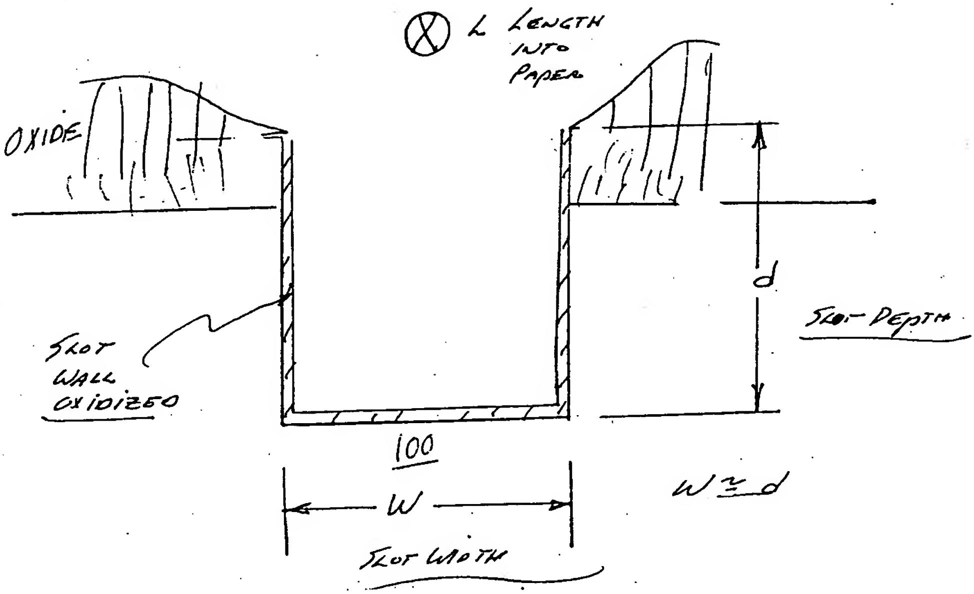

L LENGTH INTO PAPER
OXIDE
d
SLOT DEPTH
SLOT WALL OXIDIZED
100
W
W ≃ d
SLOT WIDTH

Fig. 3

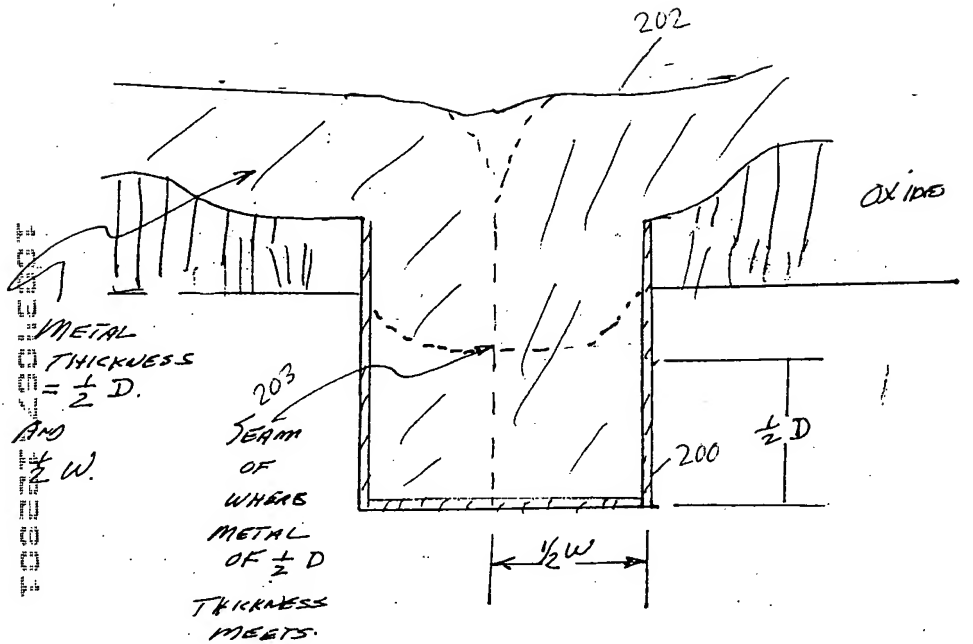
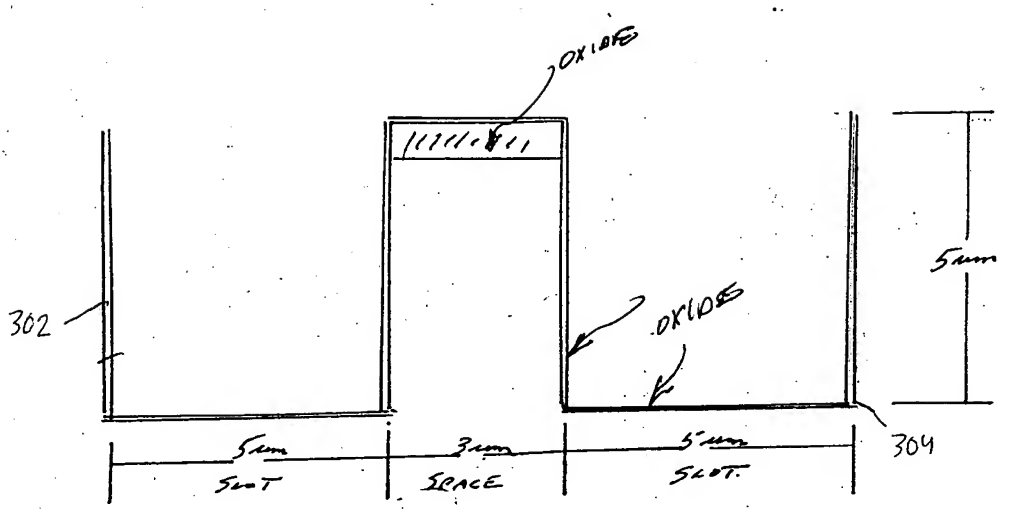
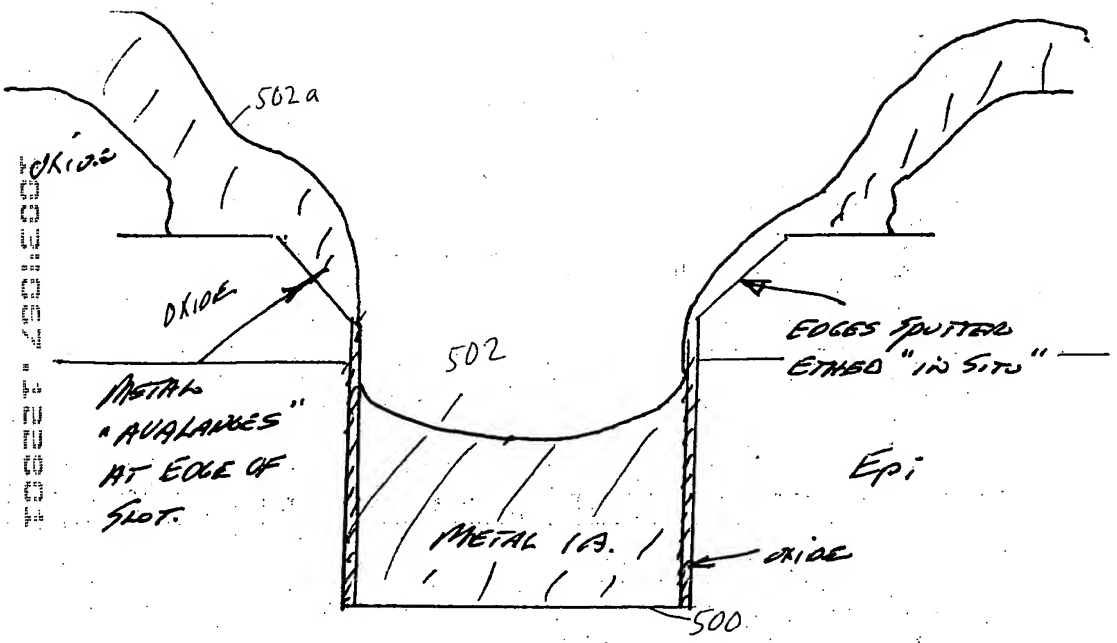

202
OXIDE
METAL THICKNESS = ½ D.
AND ½ W.
203
SEAM OF WHERE METAL OF ½ D THICKNESS MEETS.
200
½ D
½ W

Fig. 4



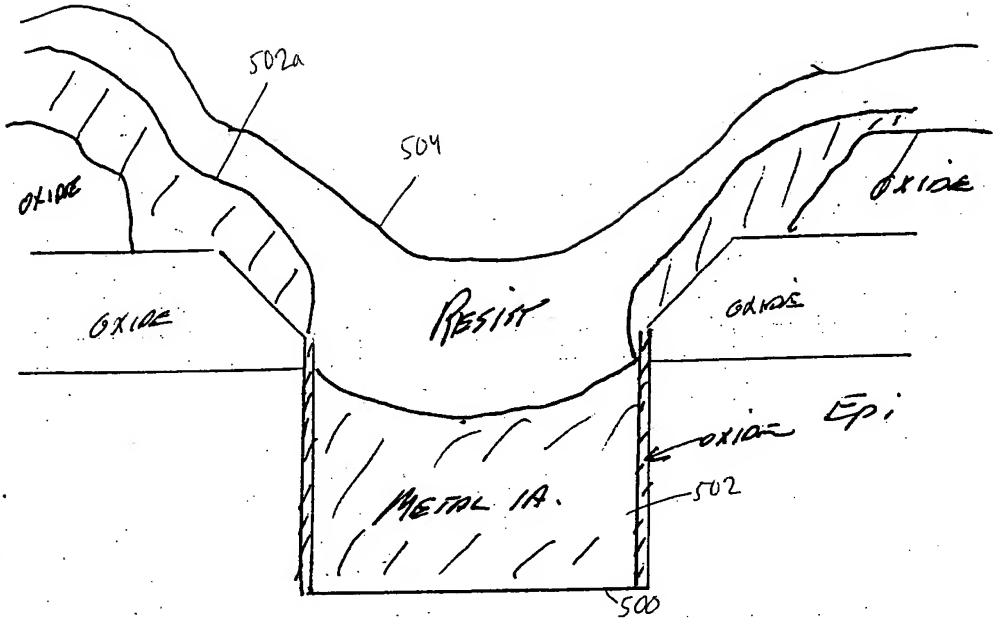
DOUBLE SLOT FOR
DOUBLE WIDTH OF METAL.
3um SPACE BETWEEN SLOTS

Fig. 4a



PRIOR TO METAL 1A BEING SPUTTERED, THE EDGES OF THE OXIDES ARE SPUTTERED ETCHED "IN SITU" & 1A DEPOSITED

Fig. 5



RESIST COATING - THICK IN THE SLOTS

Fig. 6

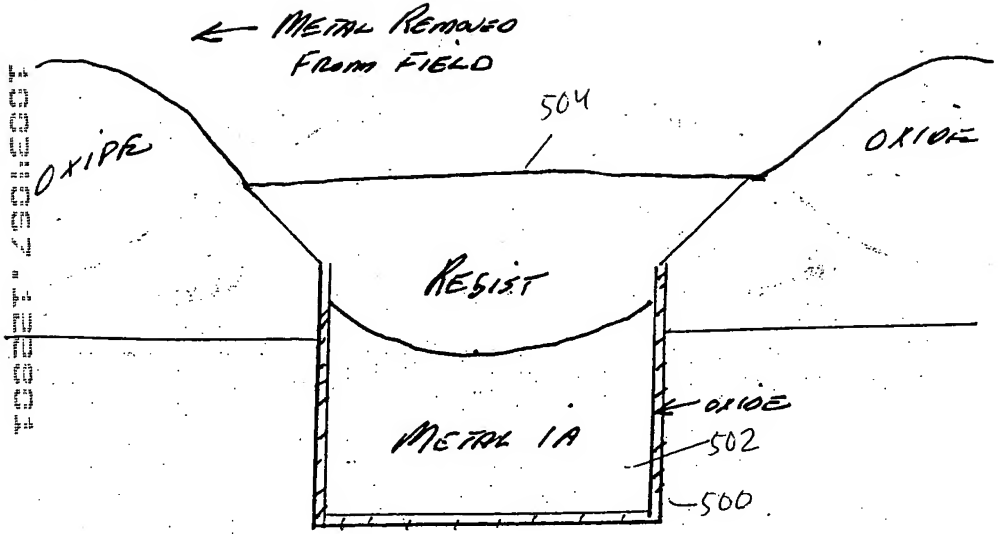
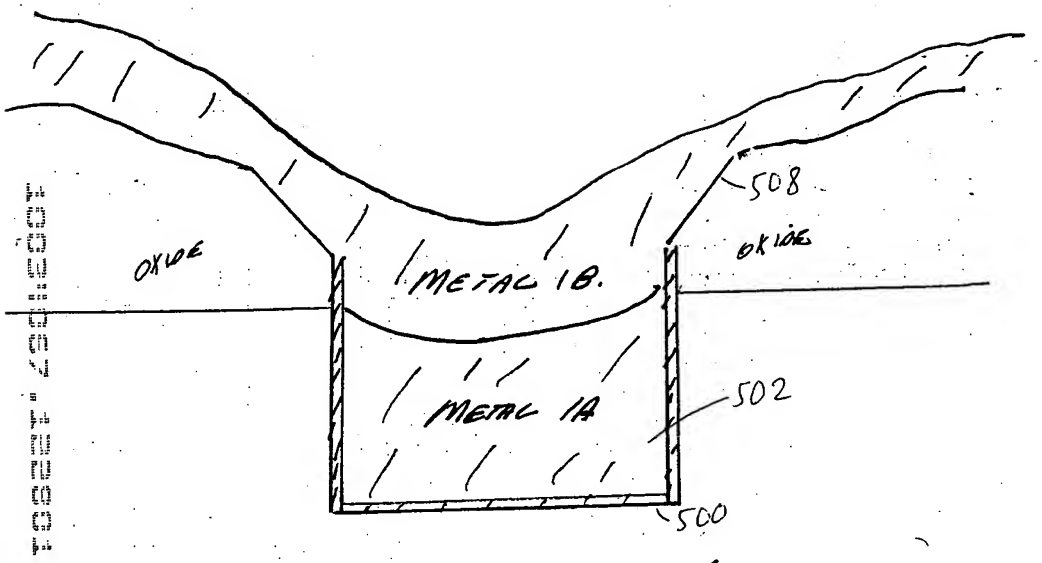

METAL REMOVED FROM FIELD
504
OXIDE
OXIDE
RESIST
OXIDE
METAL 1A
502
500
RESIST PLANAR ETCHED.
LEAVING RESIST IN SLOTS
FIELD METAL ETCHED OFF.

Fig. 7



RESIST STRIPPED & SECOND METAL 1B SPUTTER DEPOSITED

Fig. 8

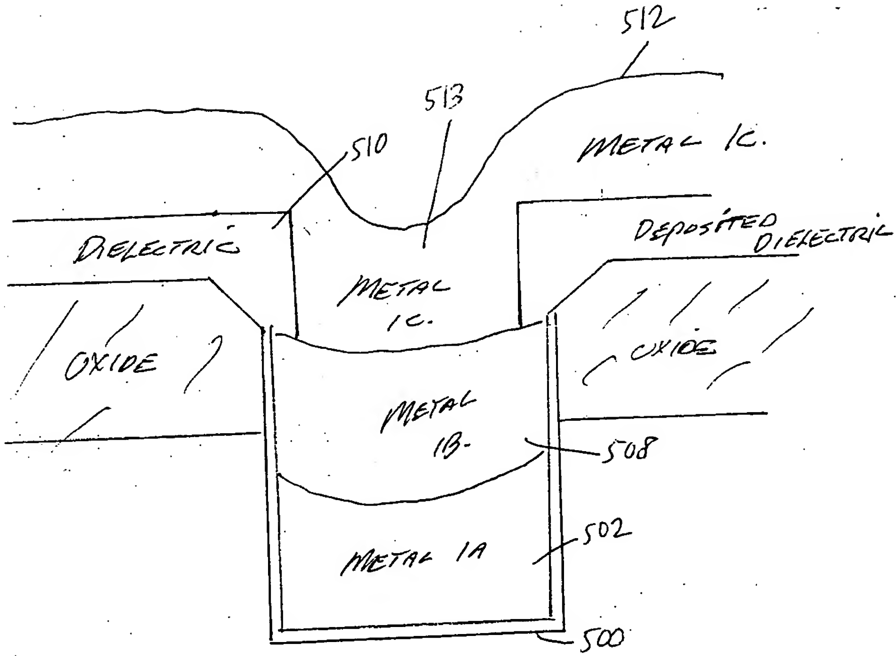

512
513
510
METAL 1C.
DIELECTRIC
DEPOSITED DIELECTRIC
METAL 1C.
OXIDE
OXIDE
METAL 1B.
508
METAL 1A
502
500

Fig. 9

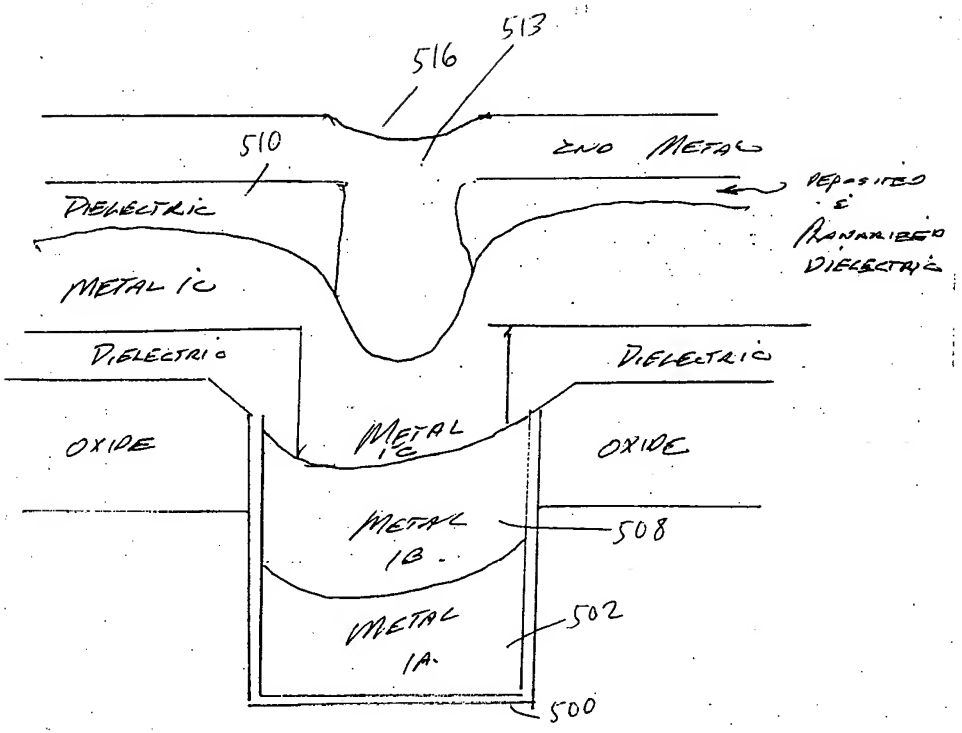
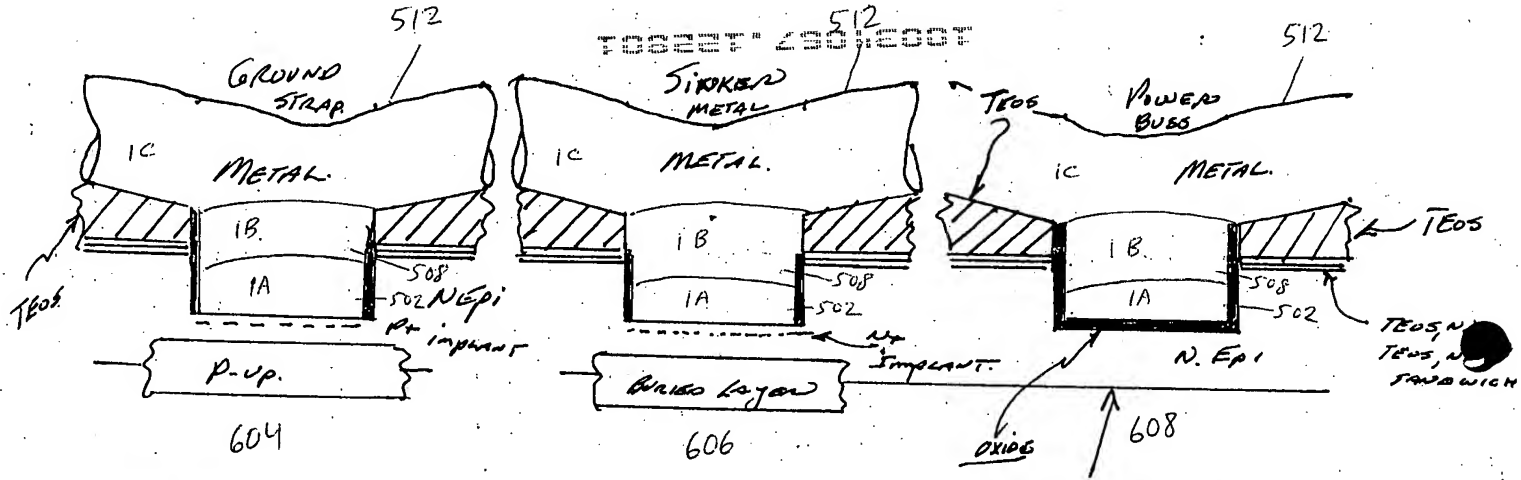

516
513
510
2ND METAL
DEPOSITED & PLANARIZED DIELECTRIC
DIELECTRIC
METAL 1C
DIELECTRIC
DIELECTRIC
OXIDE
METAL 1C
OXIDE
METAL 1B
508
METAL 1A
502
500

Fig. 10

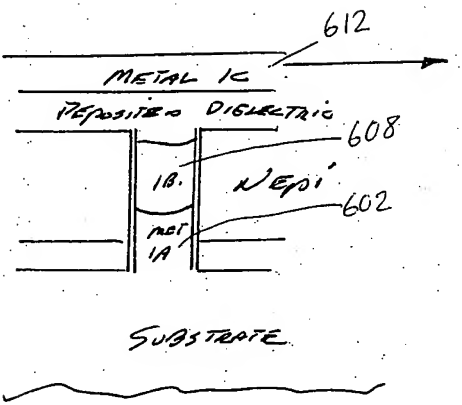


GROUND STRAP / POWER BUSS / DRAIN METAL SINKER

SHOWN AFTER LAYERS OF DIELECTRIC FOLLOWED BY 9000 Å TEOS – POLISH – SLOT MASK – METAL.

METAL 1.5 – 2.0 μm deposited

Fig. 11 POWER METAL.



METAL IC CONNECTS AN ISOLATED ISLAND TO ADJACENT ISOLATED EPI ISLANDS AND CROSSES OVER THE ISOLATION GROUND STRAP BY NOT OPENING A VIA IN THIS PORTION TO ALLOW IC TO BE ISOLATED FROM GROUND.

Fig. 12